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Assessment and Treatment for the Spanish-English Bilingual Client who Stutters: A Clinician's Guide

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Assessment and Treatment for the Spanish-English Bilingual Client who Stutters:

A Clinician's Guide

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Abstract

Assessment and Treatment for the Spanish-English Bilingual Client who Stutters: A Clinician's Guide

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In the United States, there is a growing prevalence of individuals who use two or more languages in their everyday lives. A small number of those bilingual individuals may present with stuttering, a disorder of speech fluency characterized by various speech and non-speech behaviors that interfere with the forward flow of speech. Although there is a large body of research in bilingualism, there is limited literature on stuttering in bilingual speakers. Furthermore, recent resources for speech-language pathologists (SLPs) lack the latest information about assessing and treating bilingual clients who stutter. My goal is to create a clinical handbook which incorporates the most current research to provide appropriate assessment and treatment guidelines for Spanish-English (SE) clients, as it is the fastest growing population in the U.S., takes into account cultural considerations and offers activities for SLPs and graduate students seeking to complete

their master's degree in this field. This handbook will include research and techniques on how to implement the Lidcombe program along with the demands capacity theory for pre-school bilingual children who stutter. In addition, this handbook will include information on motivation, education, identification, modification which consists of fluency shaping and stuttering modification techniques, and desensitization for the bilingual school-age and adult client.

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Introduction

What is stuttering? What is the speech-language pathologist's (SLP) role in working with bilingual clients who stutter? Are stuttering patterns similar or different when comparing a bilingual individual's languages? Does proficiency and language dominance influence stuttering severity? What are common myths about bilingualism and stuttering? How does stuttering, assessment and treatment differ from monolinguals? This handbook provides a response to all of these questions as well as additional insight on the topic. Many SLPs are uncomfortable treating fluency disorders and more so if the client is bilingual. With such a growing population of Hispanics in the United States, SLPs should then alter their therapy in order to meet the needs of this bilingual population who stutters.

What is stuttering?

Stuttering is a disorder of speech fluency characterized by various speech and non-speech behaviors that interfere with the forward flow of speech (Byrd, 2013). It begins during childhood and lasts throughout life in some cases (American Speech-Language Hearing Association [ASHA], 2007). Stuttering-like disfluencies include repetitions of sounds, syllables and/or words, sound prolongations and/or blocks (inaudible sound prolongations) (Byrd, 2013). Secondary behaviors include closing of the eyes, excessive lip, neck and/or jaw tension, tapping of the fingers and/or feet or there may be no unusual non-speech behaviors. Non-stuttering like disfluencies consist of phrase repetitions, interjections and revisions. Although all individuals are disfluent at

times, what differentiates the person who stutters from someone with normal speech disfluencies is the kind and amount of the disfluencies (Byrd, 2013).

In many cases, stuttering impacts at least some of the person's daily activities (American Speech-Language Hearing Association [ASHA], 2007). The specific situations that a person finds challenging to perform varies across individuals; some may find it difficult to speak on the phone or in front of a large group of people while others may find it difficult to interact with others at school or work, but may find it more comfortable at home. Some individuals may limit their participation or avoid certain activities because of their stuttering. How much stuttering affects a person's daily life also depends on how the person and others react to the disorder (American Speech-Language Hearing Association [ASHA], 2007).

What is the SLP's role in working with bilingual clients who stutter?

Children and adults see SLPs for various reasons. According to the American Speech-Language-Hearing Association (ASHA), our scope of practice includes addressing typical and atypical communication in the area of fluency which includes stuttering (2007). Therefore, an individual who wants help with their stuttering may seek the services of an SLP which will provide them with strategies and techniques that will not eliminate the stuttering, but instead reduce it by teaching the client how to have better control of his/her disfluencies.

Are stuttering patterns similar or different when comparing a bilingual individual's languages?

Ardila, Ramos and Barrocas (2010) studied the stuttering patterns that may differ when comparing two languages. Their goal was to determine whether or not specific patterns of stuttering in each one of the languages may potentially be found. The case study examined the fluency characteristics of a 27-year-old Spanish-English bilingual adult male who had been diagnosed with stuttering. The participant's dominant language was English and it was reported that approximately 10% of his output was in Spanish despite being of Cuban descent. The authors analyzed the participant's disfluent speech production during speech and language testing, which was performed in both languages. The authors tested language comprehension and repetition, vocabulary, reading, verbal fluency and spontaneous and conversational speech. It should be noted that the researchers only considered phonemic prolongations, phonemic repetitions, and syllable and whole-word repetitions as stuttering-like disfluencies and did not include blocks because according to the authors, blocks are associated with speech abnormality. It was concluded that stuttering was more frequent in Spanish compared to English. The participant stuttered more frequently on verbs, adjectives, adverbs and conjunctions in Spanish. The different stuttering patterns seen could have been due to the fact that stuttering was more severe in the less dominant language; the participant received therapy in English and as a result had better control of his stuttering in English, and/or because of the linguistic differences of the languages such as stress characteristics, word length, and speech rate (Ardila et al., 2010).

One of the most recent studies by Taliancich-Klinger, Byrd and Bedore (2013) looked at the disfluent speech behaviors produced by a 6;1 year old Spanish-English

speaking female who was diagnosed with stuttering and showed mixed language dominance. The data from the language questionnaire completed by the parent indicated more English exposure but formal testing results revealed a stronger performance in Spanish. Like Ardila et al.'s (2010) study, disfluencies were evaluated in conversation with the addition of narrative samples. Both samples across the two languages were analyzed using the Systematic Analysis of Language Transcripts (SALT) program. Similarities and differences were found in the speech disfluencies produced in English compared to Spanish. The participant demonstrated more disfluencies across both her English narrative and conversational output. However, she produced more stuttering-like disfluencies in her Spanish narrative while more nonstuttering-like disfluencies were seen in her English narrative sample. The researchers concluded that there are stuttering and language specific contributors to the disfluencies that characterize the speech output of a Spanish-English bilingual child who stutters (Taliancich-Klinger et al., 2013). Seeing as the participant demonstrated mixed language dominance, this indicates that language dominance may not be a valid explanation for why the participant stuttered at a higher degree in Spanish. In any case, the different disfluencies produced in each language indicate that services must be provided in both languages when possible in order for the child to ultimately become more fluent during conversational speech in English and Spanish.

Does proficiency and language dominance influence stuttering severity?

Not only have researchers looked at the different types of disfluencies that occur in a bilingual stutterer's languages, but studies have also looked at the effects of language

competence and dominance on stuttering. Jankelowitz and Bortz (1996) found that language proficiency influenced the frequency of disfluency and the types of disfluent behaviors with an English-Afrikaans bilingual stutterer. The participant was a 63-year-old bilingual male stutterer who spoke both English and Afrikaans at home although Afrikaans dominated. Language ability in both languages was assessed through the use of language proficiency tests. The Systematic Disfluency Analysis Frequency was used to analyze the distribution and nature of disfluencies on narrative and procedural tasks. The results demonstrated that the participant was more proficient in his dominant language and also stuttered less in that same language (Jankelowitz & Bortz, 1996).

Lim, Lincoln, Chan and Onslow (2008) looked at the influence of language dominance on stuttering severity in 30 English–Mandarin bilinguals who stuttered between the ages of 12–44 years. The participants were divided into three groups: 15 English-dominant, 4 Mandarin-dominant, and 11 balanced bilinguals. Two English–Mandarin bilingual clinicians assessed three 10 minute conversations in English and Mandarin for percent syllables stuttered (%SS), perceived stuttering severity (SEV), and types of stuttering behaviors. The English-dominant and Mandarin-dominant bilingual stutterers exhibited higher %SS and SEV scores in their less dominant language, compared to the scores for the balanced bilinguals which were similar for both languages (Lim et al., 2008).

Common Myths and Facts

The following myths about bilingualism and stuttering will be contrasted with known facts along with clinical implications. A myth stated by Conture and Curlee

(2007) includes that bilingualism is rare. An exact number on the incidence of bilingualism is not available as the definition of bilingualism varies from person to person. This does suggest that clinicians need preparation on the assessment and treatment of bilingual clients as they may encounter clients with different language backgrounds. Further research on which to base clinical services for this population is also needed. Bilingualism means speaking two languages perfectly is another misconception. This level of proficiency is rare since people tend to have different usages for their languages. Some individuals may use one language in the home and their second language at school or in the workplace. This indicates that clinicians should expect gaps in vocabulary and syntactic knowledge even if the client asserts to be fully bilingual. Regardless if the client learned two languages from age 2, level of proficiency depends on total exposure to each language and patterns of use. Another popular myth is that one is either bilingual or unilingual. Competence in each language varies across modalities including written and auditory comprehension and written and verbal expression. It is important to understand what clients mean when they report themselves or their child as bilingual as each client may mean something different. It is best to focus instead on the person's level of proficiency for each language modality. A more common myth is that bilingualism increases the risk of stuttering. There is no research to support this statement. If bilingualism were a significant risk factor causing stuttering, then countries with high levels of bilingualism would have higher incidences of stuttering compared to countries with low levels of bilingualism and that is not the case. Additionally, if parents ask whether or not bilingualism is related to stuttering, SLPs can assure parents that

children who stutter will do so in both languages, meaning bilingualism is not the cause of stuttering. Children may be disfluent in their second language given that they are beginning to learn the language and due to the fact that demands have increased, but if this is the case, those disfluencies will not be seen in their first language (Conture & Curlee, 2007).

Assessment

A complete and thorough assessment of the bilingual client is the foundation for an effective treatment plan. The following guidelines mainly focus on Spanish-English bilinguals but additional considerations for other language pairs in general will be provided. An initial evaluation for a bilingual client who stutters should include background information, a complete language history, speech samples in each language spoken across a variety of contexts in order to obtain adequate measurements, and a reliable analysis of those speech samples to allow the clinician to make some judgment about rate of speech, normal speech disfluencies, disfluencies related to level of proficiency in each language, and moments of stuttering (Conture & Curlee, 2007). In addition to the three items mentioned above, interviews need to be conducted whether it's the parent, child, and/or teacher, a communication hierarchy should be collected and an assessment on attitude must be given as well as an *Oral Motor Mechanism Screening Examination* (Byrd, 2013).

Studies have found that English-speaking SLPs are generally consistent with bilingual SLPs when describing overall stuttering severity. However, when identifying patterns of stuttering frequency across Spanish and English, and determining the most dominant stuttering type, their accuracy is not always comparable (Lee, Robb, Ormond & Blomgren, 2014). Lee et al.'s (2014) research objective was to judge the ability of English-speaking SLPs to evaluate stuttering behavior in two Spanish–English bilingual adults who stutter as they read the Rainbow Passage in both languages. The English-speaking SLPs were asked to assess the participant's frequency, severity, type, duration,

and physical concomitants of stuttering in both languages. After comparing the findings to the bilingual SLPs, the researchers found that English-speaking SLPs judged stuttering frequency to be greater in Spanish than in English for one participant. The English-speaking SLPs were more accurate at evaluating stuttering moments for the English samples compared to the ones in Spanish, and identified fewer severe stuttering behaviors than the bilingual SLPs in both languages. However, they were accurate judges of overall stuttering severity in both languages (Lee et al., 2014).

These findings suggest that SLPs can accurately assess and diagnose stuttering in clients from culturally and linguistically diverse backgrounds (Lee et al., 2014). However, it should be noted that they asked the SLPs to evaluate the participant's stuttering from a reading sample and not from spontaneous speech – the latter method being one that would be most commonly used during an actual assessment. This in turn limits the generalizability of the findings but monolingual clinicians should be aware that their accuracy may not be as comparable to that of bilingual clinicians. Bilingual clinicians should also carefully consider that they may not speak the language(s) of the child. If specific ratings of stuttering severity and characteristics play a decisive role in the diagnosis of the disorder, it would be wise to seek the assistance of another SLP or an individual fluent in the languages of the client (Lee et al., 2014). The accuracy and reliability of judgments may be increased through consensus agreement for unambiguous moments of stuttering with a person familiar with the language (Shenker, 2011).

Yet another and perhaps more critical consideration with regard to the fidelity of the majority of the studies that have investigated identification of stuttering in speakers of

two languages is that the examiners were only exposed to confirmed stutterers. More recently, Byrd, Watson, Bedore, and Mullis (in press) explored identification accuracy when listening to both a bilingual child with confirmed stuttering and a bilingual child who does not stutter. Results revealed that identification accuracy is compromised for bilingual children who do not stutter. Twelve out of the fourteen bilingual SLPs misidentified the typically fluent SE bilingual child as a child who stutters. However, the SE child with confirmed stuttering was accurately identified by ten of the fourteen SLPs. These finding suggest that the risk for a positive identification of stuttering increases with SE children who may present with some disfluencies but do not stutter (Byrd et al., in press). Further, recent data shows that SE children who do not present with stuttering may demonstrate overall frequency stuttering-like disfluencies per total words which would be indicative of stuttering in a monolingual English speaker (Byrd, Bedore, & Ramos, 2015).

Background Information

The parent or client will be asked to complete a background information questionnaire as this will help the clinician make the most accurate diagnosis. If the client has a close or distant family member that stutters, there is a higher probability that the client could present with childhood onset fluency disorder since studies have shown that there is a genetic component to the disorder.

Complete Language History

The first part of an adequate language history is to obtain the age of first exposure to each language and also the development for each (Conture & Curlee, 2007). This

information is significant for children since part of the assessment includes screening for language and articulation problems. The next step is to identify the current domains of use for each language; for example, what language(s) does the individual speak at home, school, work, and with family. This information helps clinicians interpret performance on assessment tasks and consider appropriate topics and difficulty levels for tasks in therapy. The third part includes acquiring an estimate of the client's proficiency in each language (Conture & Curlee, 2007). When a child is learning more than one language, uneven development and delays may be seen, even if the child has been exposed to the languages from birth (Shenker, 2011). In order to get an idea of the client's level of bilingualism, ask the client to rate his/her own ability on a 10-point scale on reading, writing, speaking and understanding. The parent's rating should be used for young children and can be confirmed with clinician observation (Shenker, 2011). Most clients appear to provide valid numbers when their proficiency level is matched on different assessment tasks (Conture & Curlee, 2007). This information is extremely important to know especially during the disfluency analysis. When a speaker has limited proficiency in a language, pauses, revisions, word or phrase repetitions or even sound prolongations may be used as coping strategies and may be seen as characteristics of stuttering (Conture & Curlee, 2007).

Assessment of Receptive and Expressive Language, Phonology and Articulation

The areas of receptive and expressive language, phonology and articulation must be assessed in order to rule out the possibility of a disorder in one or more of those areas

which may be contributing to the client's difficulties in establishing fluent speech. The assessments in these areas should be done in both languages and tests such as the *Pre-school Language Scales, Fifth Edition Spanish (PLS-5 Spanish)* can be used which provides comprehensive information about a SE bilingual child's (ages birth-7;11) receptive and expressive skills (Zimmerman, Steiner, & Pond, 2012). The *Bilingual English-Spanish Assessment (BESA)* is a recently developed SE bilingual test which looks at language abilities (phonology, morphosyntax, semantics) in children (ages 4-6;11) of varying levels of SE bilingualism. This assessment helps determine if language errors observed in some young children are due to an underlying language impairment or to limited exposure to English (Peña, Gutiérrez-Clellen, Iglesias, Goldstein, & Bedore, n.d.). The *Contextual Probes of Articulation Competence-Spanish (CPAC-S)* assessment was developed to assess the articulatory and phonological abilities of bilingual speakers of English and Spanish (Goldstein & Iglesias, 2015). The exams used will depend on the client's age, the languages spoken by the client, clinician preference, reliability and validity as well as exam availability but nonetheless, should be administered given that underlying deficits could be the cause of disfluent speech. It is also important to be aware that a simultaneous bilingual, one who learned a first and second language at the same time beginning at or shortly after birth (up to age 3), will demonstrate delays in both languages if there is a speech and/or language impairment (Kohnert, 2013). A sequential bilingual, one who learned a first language first and afterwards learned a second language, will show delays in his/her first language if there is a speech and/or language impairment (Kohnert, 2013).

Speech Samples in each Language

The next step in the assessment is to obtain speech samples during tasks that are appropriate to the client's age and stuttering severity (Conture & Curlee, 2007). Collecting speech samples in different speaking situations not only reduces the probability that the true extent of stuttering might be underestimated, but it can also provide information regarding the nature of the client's stuttering (Yaruss, 1997). The clinician will be able to compare the rate of speech, number and type of disfluencies, and type and duration of moments of stuttering of the client's languages (Conture & Curlee, 2007). It is ideal to obtain two speech samples for each task since it is impossible to accurately judge the severity of stuttering in each language based on one short language sample (Conture & Curlee, 2007). Examples of tasks include conversation, a story re-tell, a phone call, etc. It is suggested to also obtain narrative samples for the Spanish-English client instead of only relying on conversational samples, the standard practice seen in the assessment (Byrd, Bedore, & Ramos, 2014). The clinician may need to ask the client, parent or an interpreter for help with identifying all disfluencies if he/she does not speak Spanish. Finn & Cordes (1997) suggests that the clinician may want to compare his/her own judgments of stuttering with the client's self-judgments of stuttering who may provide a non-verbal signal such as raising his/her hand, as well as with the judgments made by a family member. It should be noted that the client may not be aware of his/her stuttering moments and therefore, a large discrepancy may be seen during the comparisons. It is however, necessary to sample both languages the client speaks and not just in the shared language (English) of the client and clinician. If disfluencies are only

observed in the client's second language, then this suggests that the disfluencies are possibly related to the acquisition and development of two languages and are different from the disfluencies produced by a person who stutters (Van Borsel, Maes, & Foulon, 2001).

It is also important to be aware that bilingual speakers generally fall into the category of circumstantial bilinguals, where they use each of their languages for different areas of their lives; one language may only be spoken at home while the other may only be spoken at school (Kester & Peña, 2002). This in turns signifies that a client may only be familiar with certain vocabulary in specific areas (e.g. home routines such as showering, cleaning and sleeping in Spanish versus academic concepts such as shapes, colors, and numbers in English) and having them complete a task that requires unfamiliar vocabulary may create the following: a slower rate of speech, pauses, interjections, and/or revisions due to word finding and syntactic differences (Conture & Curlee, 2007). Code-switching or combining elements from both languages within a single sentence or conversation, and the use of shorter sentences may also be seen in this situation (Kohnert, 2013). These behaviors could mistakenly be taken as stuttering when in fact, they are normal, bilingual coping strategies (Conture & Curlee, 2007). It is recommended to obtain speech samples about topics they are familiar and comfortable with in each language.

Present data indicates that frequency of speech disfluencies does not correlate with language dominance where in a recent study, all the SE children who did not present with stuttering exhibited more disfluencies in Spanish as opposed to English (Byrd et al.,

2015). With that said, that could very well be due to the complexity of the language. Spanish requires the individual to select the appropriate article form depending on the gender of the noun and whether it is definite or indefinite whereas in English, only the definiteness is an area of concern (Byrd et al., 2015). Verb conjugations are another huge difference between English and Spanish. Verbs are conjugated in three persons, each having a singular and plural form and depend on the tense, without overlooking the irregular verbs. Additionally, Spanish is a pro-drop language where the subject pronoun is often omitted since it can be determined through the verb conjugation and context. This in turn explains why SE bilinguals produce more stuttering-like disfluencies when producing verbs than nouns, because the use of verbs is more frequent and complex (Bernstein Ratner & Benitez, 1985).

Other language pairs may be different and the complexity of the language may vary, but these are factors that should be taken into consideration when evaluating the speech samples of the client. For instance, there are significant differences between English and Korean. Korean is an agglutinative language, meaning that verb information such as tense and mood between the speaker and the listener is added to the end of the verb (Shoebottom, 2014). In English, the extensive use of auxiliaries help convey verb meaning. It is to be expected that some Korean speakers who are learning English as a second language will initially have problems in accurately producing English verb phrases (Shoebottom, 2014). Knowing some information about the complexity and differences between the language pair that the client speaks will further help the clinician

determine whether the disfluencies being produced are potentially due to language complexity or possible stuttering.

A speech rate analysis is another area of assessment that is completed using the speech samples from each language. Using the speech rate worksheet, ten utterances are selected and a dash is recorded for each word along with the time of the utterance and the number of words in each utterance (Hampton, 2010). The total number of words is then divided by the length of time and afterwards multiplied by 60 (refer to figure 1). After the speech rate is calculated for each utterance, the average of the ten utterances is calculated. The average rate of speech for a first grader is 125 words per minute and a fifth grader's average is about 142 words per minute. An adult's speech rate ranges from 220 to 410 in conversational speech (Hampton, 2010). When working with a bilingual client, the clinician must take into account that speech rate norms in another language such as Spanish may be faster. Pellegrino, Coupé, and Marsico (2011) analyzed the speech of 59 people reading the same 20 texts aloud in seven languages. They found that Spanish and Japanese, often described as "fast lan16auges," clocked the greatest number of syllables per second. The "slowest" language in the set was Mandarin, followed by German and English (Pellegrino et al., 2011).

Measurement of Disfluencies

When completing the speech disfluency analysis, the clinician's goal is to determine the types, duration, clustering, iterations and frequency of the disfluencies as well as any secondary behaviors that may be present in both English and Spanish (Byrd, 2013). The duration is the measurement of the length of the stuttering moment while

clustering are the disfluencies that occur adjacent to one another. Iterations are the number of times the repetition is repeated. A disfluency count sheet can be utilized to make note of the characteristics mentioned above as well as provide the frequency of stuttering (refer to figure 2). A disfluency count sheet analyzes 300 words of conversational speech and is completed on-line by a clinician. When assessing a child, it is important to complete one sheet with the parent and one with the clinician in both languages (Hampton, 2010).

The clinician should look for the following types of stuttering-like disfluencies: sound, syllable and/or word repetitions, sound prolongations and/or blocks (inaudible sound prolongations) (Byrd, 2013) (refer to figure 17 for a Spanish translation of the terminology). Non-stuttering like disfluencies consist of phrase repetitions, interjections and revisions. A bilingual client who stutters demonstrates stuttering-like disfluencies to some degree in each language. From personal experience, a SE bilingual client who stutters repeats more syllables and words in Spanish as compared to English. This could be due to the fact that multisyllabic words occur with much greater frequency in Spanish (Gildersleeve-Neumann, Peña, Davis, & Kester, 2009). Through observation and working with a 7-year-old SE bilingual female who stutters, moments of stuttering occurred more often with multisyllabic words and with the articles “el” and “la.” However, a SE bilingual child who does not stutter may very well also show repetitions. Sixteen of the 18 participants in Byrd et al.’s (2015) study produced monosyllabic word repetitions in both their English and Spanish conversational samples. Twelve participants produced sound repetitions in one language or the other and only five of the children did not

produce sound repetitions in either language (Byrd, 2015). In addition, clinicians must be aware that some unfamiliar languages use reduplication as a morphophonemic marker to mark plurals, as seen in some Native American languages, and these repetitions can be mistakenly perceived as stuttering (Finn & Cordes, 1997).

In order to obtain the frequency of stuttering, the number of total disfluencies per total words, the number of stuttering-like disfluencies per total words, and the number of stuttering-like disfluencies per total disfluencies are calculated. The following guidelines are followed with a monolingual client. If the number of total disfluencies per total words is greater than or equal to 10%, the number of stuttering-like disfluencies per total words is greater than or equal to 3% and/or the number of stuttering-like disfluencies per total disfluencies is greater than or equal to 72%, this could indicate stuttering. In addition, in order to calculate the secondary behaviors, the number of disfluencies accompanied by secondary behaviors is divided by the total number of disfluencies (Byrd, 2013). However, the diagnosis should not be based on the frequency alone especially since a bilingual client is being assessed. Byrd et al. (2015) looked at the disfluent speech of bilingual SE children who do not stutter and compared and contrasted the findings to that of children who stutter. The authors found that the average frequency of stuttering-like disfluencies exceeded the monolingual standard of 3 per 100 words. The mean percent of the participant's stuttering-like speech disfluencies ranged from 3 to 22 percent and 13 out of 18 children produced more than 10 total disfluencies out of 100 words (Byrd et al., 2015). With that said, clinicians must be aware that using the monolingual English speaking frequency guidelines could lead to a false positive identification of stuttering

since a high number of disfluencies is also seen in SE bilinguals who do not stutter. As a result, it is crucial that the clinician complete a disfluent speech analysis in both of the client's languages regardless of language dominance since speech disfluencies may vary depending on the language produced (Byrd et al., 2015).

Interviews

Part of the assessment is to conduct several interviews if possible. Again, a translator may be needed if the parent or child does not speak the language(s) of the clinician. It is ideal to interview the parent and possibly any teachers for the preschool child. The child, parents and teachers are interviewed for the school age and adolescent child but the content of the questions directed towards the child differs. Ethnographic interviews are highly suggested and can be helpful in identifying the beliefs of multi-cultural families (Shenker, 2011). In these interviews, open-ended questions which prevent the client/family member(s) from responding in a particular way helps identify their hopes and concerns for treatment and provides the clinician with valuable information that may or may not help with the diagnostic decision. Restating and summarizing the parents' statements gives them the opportunity to correct any misinterpreted data and lets the person know that the clinician is listening attentively. The interview also helps establish the role of the family in treatment; for instance, who will be the person accompanying the child to treatment, who will assist in providing the treatment guided by the clinician in settings outside of the clinic, and will other family members be included in the treatment (Shenker, 2011). It should also be noted that the interview may be compromised if direct questioning to the mother is not possible due to

the father being the spokesperson for the family, a part of the family's culture (Van Borsel et al., 2001).

Assessment of Communication Hierarchy

An assessment of the client's communication hierarchy of least to most difficult speaking situations is important to collect in both languages as well. Domains of use of each language and proficiency levels may create a different hierarchy in Spanish and English (refer to figure 16) and this information becomes important during the development of the client's treatment plan. For the pre-school client, a parent interview will provide more detailed information (Byrd, 2013). For the school-age client, a client and parent interview should be conducted and the client should be asked to make a hierarchical drawing of a mountain, tree or ladder for each language. For the adult client, a direct interview with the client is best although an interview with a spouse or another family member is also an option (Byrd, 2013).

Assessment on Attitude

Most clients who stutter develop a negative attitude about their communication; however, a clinician should not expect to see the same reaction from a second-language learner (Van Borsel, 2001). The *Communication Attitude Test for Preschool and Kindergarten Children Who Stutter (Kiddy-CAT)* assessment, which looks at speech-associated attitudes of children, should be administered to the pre-school child and a parent interview asking questions about the how the child feels and reacts towards his/her stuttering should be conducted (Vanryckeghem & Brutten, 2006). However, the *Kiddy-Cat* assessment is only available in English and translating the test could compromise the

content and the child and family may have different cultural perspectives toward the disorder. Thus, the information on the child's attitude towards his/her stuttering reported by the parent may provide the clinician with more valid results. The language of the interview will depend on the language that the parent(s) speaks, and an interpreter may be needed. If time permits, the clinician may want to ask the child to draw a picture about his/her speech or have the child trace both his/her hands and write down or verbally state five things that he/she likes about himself/herself and five things that he/she dislikes about himself/herself. This should be completed in both languages.

The *Overall Assessment of the Speaker's Experience of Stuttering (OASES),* which measures the impact of stuttering on a person's life, should be administered to the school-age child along with a parent and child interview (Yaruss, & Quesal, 2010). Whether the English and/or Spanish version of the assessment is given will depend on the child's written language proficiency. If the child prefers and feels more comfortable and confident reading and writing one language, it is recommended to allow the child to complete the questionnaire in that language. However, the child may have different attitudes towards his/her communication in each language; therefore, it is suggested to have the child not only describe those attitudes when speaking English, but when conversing in Spanish as well. The clinician can also ask the child to complete a drawing or the hands exercise described above in both languages. For the adolescent and adult, the *OASES* assessment in one or both languages is given as well as a parent and/or client interview. Again, the adult's written language proficiency and preference will determine

which version of the assessment to administer, asking the client to include information about his/her attitudes towards communication in both languages.

Oral Motor Mechanism Examination

The *Oral Speech Mechanism Screening Examination – Third Edition (OSMSE-3)* looks for any abnormalities of the face, lips, soft palate/pharynx, tongue, jaw, hard palate and diadochokinesis rate (St. Louis & Ruscello, 2000). Most people who stutter will demonstrate difficulty with the diadochokinesis tasks since they have to repeat the syllables /p^/, /t^/ and /k^/ separately for as long as possible. Additionally, they will be asked to combine the syllables into /p^t^/ and /p^t^k^/ and repeat them for as long as possible while the clinician times the task.

Treatment

Many clients who stutter seek speech therapy in hopes of either eliminating the stuttering or learning techniques that will help them have better control of their speech. However, stuttering modification is not the only aspect that is targeted in therapy since other areas are just as important. The therapy provided to a preschool child is different to that of a school-age and adult client in that the goal is to try to reduce the number of disfluencies by implementing methods that have been proven to be effective by either reducing the demands of the communication environment and/or increasing the child's awareness of fluent and disfluent speech and having them learn to correct it. The goal for the school-age and adult clients is not only to teach them fluency shaping and stuttering modification techniques but also to educate and desensitize them with regards to stuttering as well as help them develop a positive communication image (Sidavi & Fabus, 2010). Yet, several factors must be taken into account when treating a bilingual individual who stutters. This includes the language(s) that the therapy will be provided in, the generalization of gains to the untreated language, and cultural factors in the treatment provided to the clients.

Only a handful of studies have provided documentation of the treatment of bilingual children who stutter along with evidence of generalization of treatment gains across languages. A case study by Humphrey et al. (2001) which has not been published, but was presented at the Florida Speech and Hearing Association looked at two 11-year-old identical twin bilingual English-Arabic girls who were provided with a reading treatment along with a combination of fluency shaping and stuttering modification

(Shenker, 2011). The treatment was only provided in Arabic; yet, it generalized to English where their fluency was reduced in Arabic reading from 27% and 18% to 2% syllable stuttered (SS) and generalized to English reading from 29% and 23% to 3% syllable stuttered and 1% SS (Shenker, 2011). The problem with this unpublished study is that clinicians are not able to obtain more information regarding their diagnoses of stuttering, types of disfluencies produced and a description of the treatment received. This summary alone is not enough to conclude that cross-generalization can always occur. Perhaps the linguistic similarities and/or differences between Arabic and English allow for easier transfer of strategies. For instance, Arabic is read from right to left instead of left to right as seen in the English language. Having to focus on reading from left to right will probably be completed at a slower pace which in turn may promote fluency, and not necessarily be a generalization of the learned techniques. The fact that they are older should also be taken into consideration; at age 11, children may very well have the capacity to use the stuttering techniques in both languages if they see improvements in the language being treated. However, a 6 or 7 year old child is still developing critical thinking skills and may not be able to make that connection unless explicitly instructed to do so by the clinician and with practice.

Conture and Curlee (2007) discussed that in some cases, gains made in therapy in one language generalizes to an untreated language. In other cases, there is some improvement in the untreated language but less than in the treated language. The authors themselves have seen bilingual adults who stutter where there is no improvement in the untreated language (Conture & Curlee, 2007). Ideally, the best approach would be

treatment in both languages. Yet, not all clinicians are bilingual and if they are, they may not speak some of the languages of the child. For this reason, the parent(s) may be able to help, similar to when using the Lidcombe program. The parent may be able to practice the strategies with the child in the language that the clinician does not speak.

Pre-school Client

Across the treatment programs for preschool children who stutter, the following methods have been found to be effective. Given that not all clinicians are bilingual, the parent(s) may be able to assist with therapy, similar to when implementing the Lidcombe program. The Lidcombe Program is a behavioral treatment for preschool children below age 6 where the parent gives verbal contingencies for stutter-free speech and for stuttering during certain periods each day (Bakhtiar & Packman, 2009). Training takes place during weekly visits to the clinic under the guidance of a speech-language pathologist. Treatment effects are measured by the parent who provides perceptual ratings of severity with a 10-point scale to track the progress of the treatment at home and by the clinician who measures stuttering frequency (Bakhtiar & Packman, 2009). An example of this treatment being applied to a bilingual child who stutters is described in a study by Roberts and Shenker (2007) (as described in Shenker, 2011). A 3;11 year old child began receiving treatment after stuttering for more than 18 months. The child had been exposed to English and French from birth and pre-treatment stuttering ranged from 5.6 to 8.8% SS in both languages based on spontaneous conversational samples. Additionally, pre-treatment severity ratings were 8 in English and 6 in French. Treatment was initially provided in English and French was introduced at week 7. The child met the

criteria for Stage 1 of the Lidcombe Program (less than 1% SS and severity ratings of mostly 1 over 3 consecutive weeks) at 15 sessions over 23 weeks. Follow-up was conducted at 88 weeks following discharge from Stage 2 of the Lidcombe Program and it was demonstrated that fluency had been maintained in English (0.6% SS) and French (0.9% SS) with severity ratings of 1 in both languages (Shenker, 2011).

A more current study on the implementation of the Lidcombe Program in bilingual children who stutter was completed by Bakhtiar and Packman (2009) who reported treatment outcomes carried out in Baluchi and Persian with an 8;11 year old boy. The participant completed stage 1 of the program in 12 sessions over 13 weeks and his percentage of SS was less than 1 during his last 3 clinic visits and severity ratings per parent report indicated no stuttering for all days of the final week. Stuttering was initially characterized by repeated syllables, vowel prolongations, and some audible blocks. Treatment was given in Baluchi, the first language of the child, in unstructured situations by family members at home, while feedback was given in Persian, the language of school, in structured conversations when demonstrated by the clinician in weekly sessions. Speech recordings in both languages made beyond the clinic confirmed stuttering at below 1% SS (Bakhtiar & Packman, 2009). Thus, the Lidcombe Program shows to be effective in treating the bilingual population as well.

As mentioned above, with the Lidcombe program, parents give their child verbal contingencies (praise and/or acknowledgment) for stutter-free speech, stuttered speech, correct self-evaluation of stutter-free speech and spontaneous self-correction of stuttering (Swift et al., 2011). The SLP teaches the parent(s) how to implement it in their everyday

environment. A variation of preschool treatment is where the child is first taught different ways of talking by using the analogy “bumpy” vs. “smooth” (Byrd, 2013) (refer to figure 17 for a Spanish translation of the terminology). “Bumpy” signifies stuttered speech and “smooth” represents stutter-free speech. Objects which are smooth and bumpy can be first introduced to the child so that she/he can learn the different textures which will later be applied to speech. The child can then practice stuttering voluntarily by building a story with characters whose name will include one of the stutter-like disfluencies. Once the child has practiced voluntary stuttering through different activities such as stories and games, the child can be asked to make his/her speech either “bumpy” or “smooth” (Byrd, 2013). The parents will subsequently be able to implement the verbal contingences initially in the therapy room with instruction from the clinician and eventually in the home (Swift et al., 2011). To incorporate the Demands Capacity model of intervention into therapy, parents are asked to reduce their rate of speech and increase pause time before responding to their child so that he/she does not feel pressured when communicating (Yaruss, Coleman, & Hammer, 2006). Having parents use and model a more relaxed manner of speaking and reducing the demands to speak as well as rephrasing and expanding on the child’s utterance helps provide the child with a positive communication model (Yaruss et al., 2006). Parents should also be reminded not to decrease the use of strategies right away as soon as the child becomes more fluent (Byrd, 2013). A disfluency sheet should be completed after every session and improvement should be measured over a short period of time or about 12 weeks. At the end of each session, it is important to have the client complete a simple rating scale of how he/she felt

during that session (refer to figure 3 for an example). Additionally, issues of attitude dealing with teasing, embarrassment, speech breakdowns and anger should be addressed through role-play, puppet shows, and pictures (Byrd, 2013).

Which language should be used when implementing the Lidcombe program?

Some studies have looked at gains in language generalization while only treating one language and results demonstrated that there was a decrease in stuttering in both languages. Other studies either treated the second language at week 7 or used one language in the clinic and the second language at home (refer to the studies previously mentioned). With that said, the language of the treatment is going to depend on the clinician's language abilities and the parents' input regarding the languages they would like to use while implementing the Lidcombe program in the home. Until more studies are available, perhaps the most effective method would be to treat both languages. In any case, the clinician should collect data as therapy progresses to determine if treatment is needed in a second language when only treating one language. Generalization of gains in treatment from one language to another should be measured. Rating of stuttering severity completed by the parent(s) can be used to monitor changes over time in the languages that the clinician does not speak.

Cultural Considerations

Clinicians must also be aware that not only will the languages spoken by the client affect the therapeutic process but cultural differences may do so as well. For instance, some cultures do not allow a female child to be alone with a male, or a female

clinician may not hold an authority's role (Van Borsel et al., 2001). Maintaining eye contact is a sign of disrespect or aggression in some cultures. For example, among some Native Americans, avoiding eye contact with an adult is a sign of respect (Guitar, 2006). Children may not be allowed to initiate a conversation with an adult and will only respond when asked a question (Van Borsel et al., 2001). Stuttering can also be seen as a form of religious punishment in the eyes of other cultures (Van Borsel et al., 2001). Therefore, asking a client to stutter voluntarily may not be appropriate at least in the initial stages of therapy since stuttering is regarded so negatively (Guitar, 2006). Some clinicians may touch their clients to help them identify stuttering moments or as a signal to implement one of the learned techniques; however, some cultures may view that as disrespectful and an invasion of personal space. As a result, it is best to ask for permission before doing so (Guitar, 2006). In any case, each cultural belief should be respected and taken into consideration when providing therapy to families of different cultures.

Diverse cultural perceptions with regards to stuttering may also lead families to have mistaken etiological beliefs about the development of stuttering, and use incorrect methods for cueing the stuttering. Etiologies vary among countries, from imitating an adult's stuttering to eating grasshoppers to a pregnant woman drinking from a cracked cup (Byrd, 2013). In Mexico, it was documented that putting a "chicharra" or the cicada species of insect, in the stutterers mouth and letting it sing would cure the stuttering. However, that was not the case. Another person who stuttered shared his story of having his grandmother ask him to take a piece of string in his mouth that was attached to a

small pebble, and bring the pebble to his mouth using only his lips. He stated to have never developed into a person who stutters, but his disfluencies may not have been characteristic of stuttering (Byrd, 2013). This is one of the reasons why education is such a fundamental aspect of therapy. However, clinicians must initially provide empathy and understanding so that parents can eventually feel comfortable enough to share that information. The clinician can then inform the parents in a respectful manner that those beliefs are considered to be myths and provide them with current research disproving that belief.

School-Age Client

There are several goals to achieve when working with the school-age client including motivation, education, identification, modification, desensitization and developing a positive communication image (Sidavi & Fabus, 2010).

Motivation

Motivation is the first and most important phrase of therapy (Sidavi & Fabus, 2010). During this phrase, the SLP becomes a guide and provides motivation and positive information about the treatment process. The clinician should create an environment where the client feels comfortable about sharing his/her feelings and emotions regarding the disorder towards each language. Additionally, the clinician must inform the client that being an active participant in treatment by practicing each strategy is necessary in order to achieve fluency (Sidavi & Fabus, 2010). The client may need additional motivation to practice the techniques in his/her less proficient language as he/she may feel vulnerable when using the language.

Education

Speech production and stuttering itself are the two areas that the client must be educated on (Byrd, 2013). Activities such as crossword puzzles, drawings and word searches can be used to teach the client about the speech mechanism and what parts of the body are used in order to produce speech in both languages (refer to figures 4, 5 and 6). The use of diagrams can help the client visually see the anatomy used in speech production (refers to figures 7 and 8). Games such as scavenger hunts are an excellent way to teach the client facts and myths about stuttering. A true/false jeopardy-type game which raises awareness about stuttering can be found at http://www.quia.com/cb/2807.html. The client can be provided with a brochure of English and Spanish speaking famous people who stutter (refer to figures 9, 10 and 11) and also watch videos of other people who stutter and discuss their experiences. In addition, the client can write a question of the week regarding stuttering at the end of the session and the clinician can provide the client with a response the following session (Byrd, 2013).

Identification

Before the client can be taught any stuttering modification or fluency shaping strategies, it is crucial for the client to be able to identify his/her own unique stuttering moments quickly and correctly in both languages (Sidavi & Fabus, 2010). The rationale behind identification is that once awareness is reached, the habit may be changed (Sidavi & Fabus, 2010). The client is asked to identify different ways of talking and describe what they are doing (Byrd, 2013). It may be easier for the client to identify stuttering

moments in others before moving onto him/herself. The clinician can either stutter on purpose, also known as voluntary stuttering, during conversational speech, when reading a book depending on the age of the client or use other resources such as videos. Once the client begins identifying his/her stuttering moments, ringing a bell for every stuttering moment may be more effective than simply making tally marks on a sheet of paper. It is also important to have the client repeat, change, or prolong stuttering-like disfluencies on purpose and describe the differences in respiration and/or articulation (Byrd, 2013). Additionally, the client may take a longer period of time to identify his/her stuttering moments in his/her weaker language which would require additional focus in that language.

Modification

The most effective method to elicit more fluent speech is by teaching the client a combination of stuttering modification and fluency shaping techniques. The reason for this is because stuttering modification therapy modifies moments of stuttering, reduces fear of stuttering and eliminates avoidance behaviors whereas fluency shaping therapy only teaches the individual to speak more fluently, and there is no focus on the individual's feelings and reactions to the disorder (Sidavi & Fabus, 2010). The combination of the two is the most effective since it will focus on all areas. The three stuttering modification techniques include cancellation, pull-out and preparatory set (Sidavi & Fabus, 2010). Cancellation is when a stutter occurs and the client allows the stuttering moment to occur. Once the stuttering moment has concluded, the client repeats the word in a more relaxed manner so that a contrast can be seen between the stuttering

moment and the controlled moment. Pull-out is when a stutter occurs and half-way through the stuttering moment, the client identifies and modifies the moment by saying the rest of the word in a more relaxed manner. Preparatory set is when the client modifies a word before the stuttering moment occurs (refer to figure 17 for a Spanish translation of the terminology). On the other hand, fluency shaping strategies are meant to produce slower, relaxed speech initiations at the beginnings of utterances (Byrd, 2013). These strategies include easy onset, light articulatory touch, and continuous phonation (American Speech-Language Hearing Association [ASHA], 1997-2015). Easy onset requires the client to initiate the first sound of the utterance in a more relaxed and controlled manner by taking in a small deep breath and saying the word during the exhale (Conture & Curlee, 2007). This strategy is typically used at the natural pauses of speech and the throat, jaw and lips are relaxed (Guitar, 2006). With light articulatory touch, the client is taught to "touch" the articulators together softly and lightly instead of tensing the articulators. Continuous phonation is when the client maintains voicing throughout the production of an utterance; for example, a sound or syllable is held out for a longer duration of time by the client (Guitar, 2006).

It is best to practice these techniques in both of the bilingual client's language if possible. In fact, studies on bilingual children with normal development indicate that instructional activities must target both languages if growth is to occur in both (Thordardottir, 2010). According to the International Association of Logopedics and Phoniatry (IALP), bilingual children with language impairment should ideally get bilingual intervention in order to promote skills in their first language while also targeting

their second language. The available research indicates that a bilingual focus, even within the same session, can be more effective than a monolingual focus, and no study suggests that the use of both languages reduces the efficacy of the treatment. Important communicative environments include two languages for the bilingual child. The knowledge and experiences that the child brings to therapy involves two languages and two cultures. Including both languages in therapy allows the child to draw on all of his/her resources instead of being restricted to a subset of those (Thordardottir, 2010).

Ebert, Kohnert, Pham, Disher, and Payesteh (2014) examined the effects of three different treatment programs for school-age bilingual children with language impairment (LI). Fifty-nine Spanish–English bilingual children with LI were assigned to receive non-linguistic cognitive processing, English, bilingual (Spanish–English), or deferred treatment. Pre- and post-treatment assessments measured change in non-linguistic cognitive processing, English, and Spanish skills as well as looked at change within and across both treatment groups and skill domains. Improvement was seen in all three intervention groups. Participants in the non-linguistic cognitive processing treatment improved processing speed significantly, and improvements on sustained selective attention were seen. The English treatment group achieved statistically significant change on two of the four English language measures, with effect sizes being moderate to large. The bilingual treatment group however, achieved improvement in both Spanish and English, although more of the English language gains reached statistical significance. The authors concluded that the gains indicate that bilingual children with LI can generalize, to some extent, from treated to untreated exemplars within an area addressed in treatment.

However, the authors also noted that gains in Spanish are more difficult to obtain and are most likely to occur when Spanish is addressed directly in treatment (Ebert et al., 2014). Although this study compared interventions for bilingual children with language impairment, the same concept can apply to stuttering treatment in that a bilingual approach will result in improvements in both Spanish and English since practice in Spanish would be directly provided.

Both stuttering modification and fluency shaping techniques should be practiced beginning at the word level and eventually moving to the phrase, sentence, monologue and conversation level (Guitar, 2006). Each task should also be performed in the client's hierarchy of difficult speaking situations (American Speech-Language Hearing Association [ASHA], 1997-2015). This means that ultimately the client should be able to use these techniques outside of the clinic after he/she becomes comfortable using them in the therapy room. Reardon-Reeves and Yaruss (2013) designed a worksheet in Spanish where the client makes a list of his/her hierarchy of difficult speaking situations and places a checkmark in the indicated box as he/she successfully completes each level. Practice in both languages is highly emphasized given that the client's hierarchy of speaking situations where he/she feels the most and least comfortable may very well be different in both languages (refer to figure 16). It is also important to ensure that the client has mastered each technique before moving onto the next one. Again, the client may need additional practice in his/her weaker language. These strategies can be practiced through conversation, picture discussions, games such as Guess Who, presentations (e.g. having the client explain learned strategies to an unfamiliar listener),

science experiments, puppet shows or any type of school project he/she may need help with since after all, therapy is client specific (refer to figures 12 and 13 for examples of activities) (Byrd, 2013).

From personal experience, a SE bilingual client who stutters requires more practice with the modification techniques in Spanish. Easy onset was learned fairly quickly and simultaneously in both languages; yet, cancellation was mastered in English some time before Spanish. It should be noted though that during conversation, the client was having to retrieve the correct word(s) in Spanish, choose the correct article, use the correct word order and/or conjugate verbs correctly all while making sure to use both easy onset and cancellation. Furthermore, during the completion of reading activities, her reading fluency, or the ability to read text rapidly, smoothly, and effortlessly with little attention to the mechanics of reading, such as decoding, was slower in Spanish (Mather & Goldstein, 2014). As a result, sounding out certain words and repeating those words appeared to be stuttering-like disfluencies but that was not always the case. The client would let the clinician know when it was not a stuttering moment but her focus on reading accuracy made it difficult for her to consistently incorporate the techniques learned. As a result, additional practice using the strategies was required in Spanish and the clinician made sure that all material selected was age-appropriate.

Desensitization

Desensitization is targeted so that the client's negative feelings and emotions toward the disorder can be addressed (Sidavi & Fabus, 2010). According to the ASHA practice portal, this is carried out by having the client voluntary stutter, creating a

disclosure statement, and discussing moments of teasing, speech breakdowns and all other emotions that may come with stuttering (American Speech-Language Hearing Association [ASHA], 1997-2015). Voluntary stuttering not only helps the client practice the different techniques but also helps the client realize that he/she can have control over his/her speech. Stuttering voluntarily out in the open the very first time the client meets someone may help him/her feel more comfortable, confident in the ability to say feared words and not have to worry about the stuttering. The client may also feel more comfortable if he/she uses a disclosure statement and informs the listener about his/her stuttering (Murphy, Yaruss, & Quesal, 2007). The ultimate goal however, would be to have the client use both strategies in both languages. The clinician can help the client create a disclosure statement in each language (refer to figure 15 for an example). The client and the clinician can also role-play possible situations and eventually move towards practicing with unfamiliar listeners outside of the clinic where the client might fear the occurrence of real stuttering moments (American Speech-Language Hearing Association [ASHA], 1997-2015).

Desensitization activities which target negative attitudes can also be completed in the form of worksheets. Reardon-Reeves and Yaruss (2013) have a created a Spanish worksheet where the child writes and describes his/her negative attitudes in a thought bubble at the top of the page and then asks the child to write a plan as to how he/she could turn those weaknesses into strengths in a thought bubble below it. The child can also be asked to vertically write down one word that best describes his/her feelings towards his/her communication (e.g. frustrated). The child is then asked to create a poem

by using each letter to further describe his/her communication (Reardon-Reeves & Yaruss, 2013). In addition, a questionnaire regarding bullying in school should be completed by the client. Reardon-Reeves and Yaruss (2013) developed a questionnaire in Spanish asking the child if he/she has ever experienced bullying, why some students experience bullying and how do they feel and react. Depending on the child's responses, teasing/bullying can be further addressed through problem-solving activities which are designed to help the client develop appropriate responses to bullying, and through a classroom presentation intended to educate peers about stuttering and the learned techniques in therapy (Murphy et al., 2007).

Positive Communication Image

Throughout every therapy session, the clinician should ensure that the client is being provided with positive reinforcement for all speech and also demonstrate appropriate reactions when a stuttering moment occurs (Byrd, 2013). Since stuttering is variable and has its peaks and valleys, there is the possibility that the client's stuttering may increase after therapy at some point. As a result, it is important to create a relapse plan with the parent on how the child will handle this relapse. The school-age client may want to build a fluency tool kit where different items could represent a strategy; for example, a turtle may represent slow speech and a pencil could indicate that cancellation can help repair stuttering moments by "rewriting" or repeating the word (Byrd, 2013). In addition, it is important to have the client complete a self-rating scale of their ability to complete each task and the progress made in therapy as well as the progress and use of techniques at home and at school (refer to figure 14 for an example). Reardon-Reeves

and Yaruss (2013) developed a rating scale in Spanish from one to ten (one signifying that the child is still working on the skill and ten referring to doing a great job) where the client rates himself/herself in the following areas: knowledge of stuttering, knowledge of the therapy, managing stuttering moments, managing tension, and self-acceptance. It is suggested to have the client verbally describe why he/she selected that rating to make sure what the client is choosing is meaningful since after all, the client should become his/her own clinician.

Adolescents and Adults

Although the goals of an adult are similar to those of a school-age client including education, identification, modification, and desensitization, motivation is also a significant aspect of adult therapy.

Motivation

Adults who seek therapy already have certain thoughts and outlooks on stuttering that changing those viewpoints will come as a challenge. Many clients doubt that therapy will help them since they may have had negative experiences in the past. As a result, motivation, encouragement and evidence must be provided along with information about the course of treatment (Guitar, 2006). One of the main focuses of therapy is working on behavioral changes by creating an environment in which the client can discuss stuttering and attempt to practice and use the different strategies taught in both of his/her languages. It is also important for both the clinician and the client to become comfortable and to share feelings and emotions regarding the disorder (Guitar, 2006). Asking the client what he/she thinks will be successful in therapy is essential so that the clinician can be aware

of the client's goals and expectations. Additionally, the clinician must stress the fact that being an active participant in treatment is fundamental in order to achieve fluency (Guitar, 2006).

Education

Although the client needs to be taught about speech production and stuttering in general, the clinician also needs to ensure that all misperceptions about the cause and facts of stuttering are corrected (Byrd, 2013). Many times, even though adults have stuttered all throughout their life, they are unaware of the facts and myths about stuttering. The client should be provided with journals articles and book chapters on the treatment of stuttering for bilingual clients along with studies that have been conducted which have attempted to determine the cause of stuttering. The clinician should then answer all questions the client may have. Some adult clients will be surprised to learn that even a number of English and Spanish-speaking famous people stutter (refer to figures 9, 10 and 11). The clinician should also provide any additional information that the client requests (Byrd, 2013).

Identification

Similar to therapy with the school-age client, it is crucial for the client to be able to identify his/her own stuttering moments quickly and correctly in both languages before the client can be taught any stuttering modification or fluency shaping strategies (Guitar, 2006). The adult client needs to first be taught the different types of speech disfluencies; both stuttering-like and non-stuttering like disfluencies so that the client knows what to look for. Again, it may be easier for the client to identify stuttering moments in others

before moving onto him/herself. YouTube videos of both English and Spanish speakers who stutter can be used as a resource when having the client identify stuttering moments in other people. The clinician can begin by stuttering voluntarily during conversational speech and subsequently have the client progress from an audio recording of him/her to a video recording of him/her, keeping in mind that an adult client may express reluctance and/or refuse to watch the video. Once the client can identify his/her disfluencies independently and consistently, the client can shift from off-line to on-line identification beginning with monologues and eventually conversational speech. The client may need a lot of encouragement as talking while monitoring can be difficult (Guitar, 2006). The clinician must be aware that the client may reach that goal in one language a lot quicker, meaning additional practice in the other language may be needed. Also, the client may refuse to identify stuttering moments in his/her second language because he/she may stutter more in that language and will feel vulnerable doing so. In that case, it is recommended that the clinician inform the client that identifying moments of stuttering in both languages is critical for the client's progress.

Modification

The same stuttering modification and fluency shaping techniques are taught to the adult client as to the school-age with an emphasis on reducing rate of speech. Asking the client to reduce his/her rate of speech in both languages will make a huge difference and will help elicit more fluent speech. Easy onset can be introduced before the goal is reached in identification since it will help the client reach that target (Guitar, 2006). It is important that each strategy is practiced in the client's hierarchy of difficult speaking

situations and in both languages (Guitar, 2006). However, the client may only want to practice the techniques in one language (e.g. language used in the workplace or at school) and although the clinician, if he/she speaks both of the client's languages, can inform the client that it would be more beneficial to practice in both, the client's decision must be respected. As mentioned above, the clinician can advise the client that practice in both languages may be critical for his/her progress in therapy and could ultimately help him/her be more fluent not only at work or school but also with family members whom he/she may use his/her second language with. Activities such as interviews, mini-presentations, phone calls, debates and small talk can be implemented to practice the various strategies but ultimately, the activities are going to be client driven (Byrd, 2013). Each stuttering modification technique must be mastered before the clinician can introduce the next technique (Guitar, 2006). The client should ultimately feel comfortable using the techniques outside of the clinic and with unfamiliar individuals in both languages. In addition, the client should complete a self-rating on the use of techniques after each activity in order to monitor progress (Guitar, 2006).

Desensitization

Not only will identification and modification help desensitize the adult client, but the clinician can also discuss with the client voluntary stuttering and the use of disclosure statements in order to minimize the negative impact stuttering might have on a listener (Healey, Gabel, Daniels, & Kawai, 2007). Voluntary stuttering in both languages helps the client reduce negative emotions by producing the kinds of stuttering that previously elicited embarrassment and fear, and the client has control of his/her speech and the

situation (Guitar, 2006). The clinician's model of voluntary stuttering is also a strong tool for desensitizing negative attitudes associated with stuttering (Guitar, 2006). A recent study by Byrd, Gkalitsiou, Stergiou & Donaher (in press) investigated client perspectives on voluntary stuttering by giving a survey to a total of 206 adults who stutter. The researchers found that the majority of the respondents reported that it was too difficult to use voluntary stuttering in everyday situations when they first began learning and using the strategy. However, most participants stated that voluntary stuttering was helpful in making them more aware of how they stutter and also used voluntary stuttering when practicing the modification techniques. It is highly suggested that clinicians encourage the use of voluntary stuttering that closely matches the client's own stuttering in both languages. Voluntary stuttering should also be practiced outside of the therapy room as more clients reported that practicing the strategy with unfamiliar listeners helped eliminate their fear of stuttering significantly (Byrd et al., in press).

The use of a disclosure statement, which may be said in either English or Spanish depending on the situation, helps reduce any of the client's fears when meeting a new person by making known that he/she is a person who stutters (refer to figure 15 for an example in both languages). The client may feel more comfortable if he/she informs the listener about his/her stuttering because it allows the listener to know what to expect and will understand the use of techniques (Byrd, 2013). No studies have explored response to self-disclosure in Spanish but the study conducted by Healey et al. (2007) found that an adult male who used a disclosure statement in English received significantly more positive listener comments (Healey et al., 2007). Practicing voluntary stuttering and the

use of disclosure statements through role-play, possibly with another clinician or an unfamiliar listener, is a great approach in creating more realistic situations.

Overall Communication Skills

Throughout therapy, the clinician should also enforce overall communication skills in both languages such as eye contact and good posture (Byrd, 2013). A covert stutterer may need constant reminders that the therapy room is a no avoidance zone (Murphy, Quesal, & Gulker, 2007). A covert stutterer appears to be more fluent because he/she either refuses to use certain words or substitute words in which he/she may stutter on. Clients who speak more than one language may be more covert in one language compared to the other. They may also be more successful at being covert in one language; yet, they have equal desires to be covert in both languages. Although difficult at first, the clinician may be able to pinpoint those moments and ask the client to say the word that he/she originally had in mind. Once the client is aware of those patterns, he/she may then be able to change those behaviors (Murphy et al., 2007). Guitar (2006) stated that treatment to reduce avoidance should begin by reducing negative feelings, more specifically, fears of stuttering and of listeners' reactions. Some clients become effective communicators once they begin using learned strategies and their stuttering frequency and severity reduces along with any negative attitudes towards stuttering (Guitar, 2006). Other clients may need guided practice especially in his/her second language and structured experiences before they feel like they can communicate effectively (Guitar, 2006).

Conclusion

There is a critical need for additional research on bilinguals who stutter to support clinical practice in this area. The differences of stuttering patterns in bilinguals suggest that therapy should be provided in both languages in order to reduce the number of disfluencies in both languages. The individual's proficiency levels and amount of exposure to his/her languages should also be taken into consideration when planning treatment. Regardless of language variables, treatment success may also be influenced by the client's history, motivation, family support, the client's understanding of and compliance with treatment tasks and the clinician's knowledge, abilities and commitment as well as the validity of selected therapy techniques. As discussed in Humphrey et al. (2001), Roberts and Shenker (2007), and Bakhtiar and Packman's (2009) studies, stuttering interventions are an effective approach with the bilingual population who stutter in reducing their stuttering moments and even more so when provided in both languages.

Appendix A

Figure 1

Date: _____

Clinician: _____ **Analyst:** _____

Speech Rate Worksheet

Client/Parent name: _____

Activity during which analysis was taken: _____

Utterance	**# of Words**	**Length (in secs)**	**Speech rate (wds/minute) (#of words / length * 60)**
1)			
2)			
3)			
4)			
5)			
6)			
7)			
8)			
9)			
10)			

Average speech rate of 10 utterances (wds/minute): _____

Speech rate worksheet © Courtney Byrd

MICHAEL & TAMI LANG STUTTERING INSTITUTE
Moody College of Communication THE UNIVERSITY OF TEXAS AT AUSTIN

Figure 2

Disfluency Count Sheet

(Byrd, 2006)

Client's Name: ____________________ Client's Age: ____ DOB: _____

Therapy Activity/Time of Analysis: _______________________________

Clinician: _____________________ Analyst: _______________________

Session Date: _________________ Analyst Contact #: ______________

Total Percentages

> or = 3% STGs/Total Words
> or = 10% Total Disfluencies/Wds
> or = 72% STG/Total Disfluencies

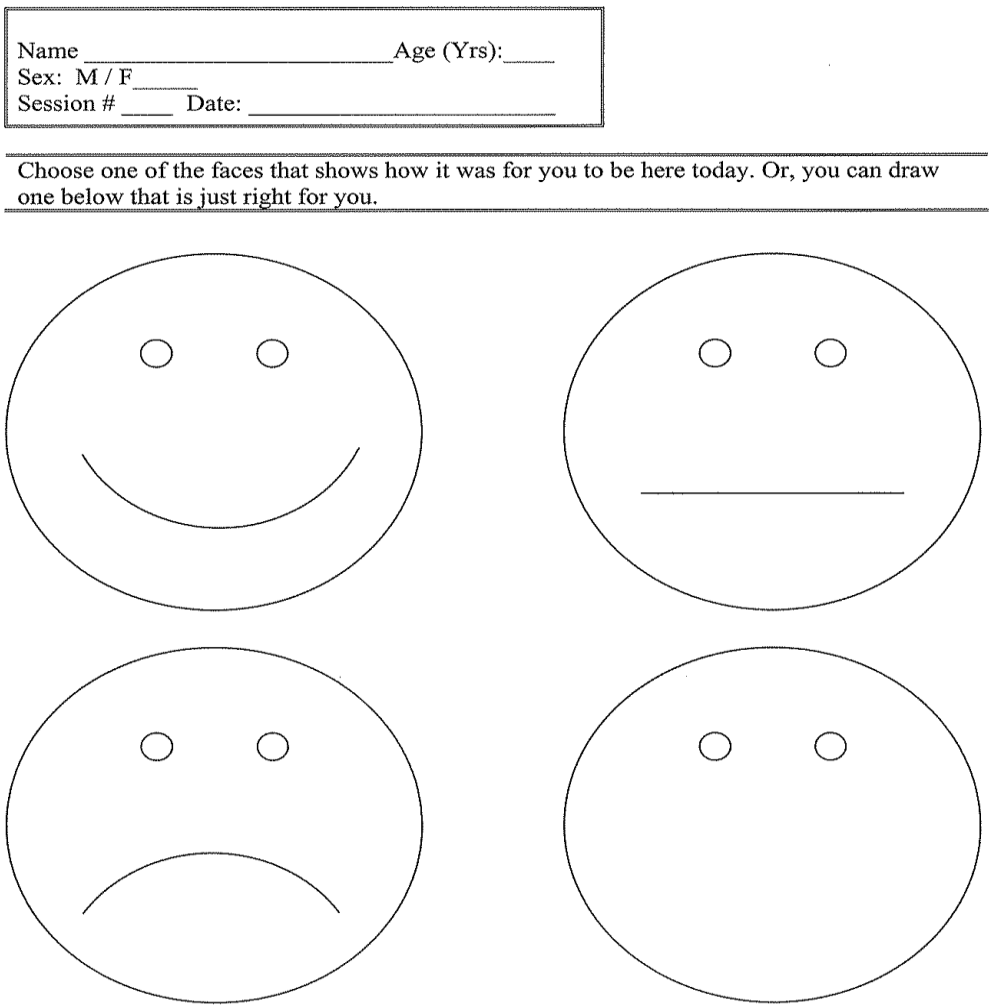
*Secondary Behavior Types: Frequency of SBs/Total STGs:

Type	Freq	Freq/Wds	Type	Freq	Freq/Wds
SSR			PR		
WWR			INTJ		
A-SP			REV		
I-SP			Other		
Other			NSTGs		
STGs					
Total Disfluencies/Wds					
STGs/Total Disfluencies					

Disfluency count sheet

Figure 3

Young Child Session Rating Scale (YCSRS)



If you would like a copy of the YCSRS, please download the document through the author's website at http://scott-d-miller-ph-d.myshopify.com/collections/performance-metrics/products/performance-metrics-licenses-for-the-ors-and-srs

Young child session rating scale (YCSRS)

Figure 4

Find Your Speech Makers

Q F B O F C Q K F Y X R O U F

O U R Z A A D F P Y A B A C J

R O T O M E U R O U M E U T Z

S D J M U K W Y P U A O U G U

B P F G D O O X D L E O U B P

S A N I C H J N J O H S G T A

B O S Q B T N L U Q C L U I H

T Z Q R R O G U N H A E D S G

U C A S T A E N G C R K A D J

S I A G I H W G B D T P C Z R

N P K T A S X S P W Z T H F A

D A I P L R H M W A I R N N I

B H S L K X R X G J T N M G T

Q H T T R F X M V X R A G Y D

K A A U T E E T H R I U V D U

BRAIN JAW LIPS
LUNGS MOTOR MOUTH
TEETH TONGUE TRACHEA

Find your speech makers crossword puzzle

Figure 5

Las partes del cuerpo que utilizamos durante el habla

Q B Q A C O U L D S Y A R D F

G M T U K U R C B E C C W G O

T U D G I D M O S N T O V V O

C S Z A Q J R A X O R B X Y I

I R V G M B A Y N M Á Q U X G

Z J O O E K G D R L Q B S J R

G W A R T I U T A U U F H G P

D I E N T E S B R P E Z Z C L

P C W P R B I Q I O A X I E Z

J V A P F O I S D B T Y R Y Y

P B Y N S K G S J R F O X S W

G E A U G N E L F A D T M D H

F A X S E S L K M U H U S H S

G O M A V O M G N R X B J L Q

V G G H E O Q N K H J T O L G

BOCA
CEREBRO
DIENTES
LABIOS
LENGUA
MOTOR
PULMONES
QUIJADA
TRÁQUEA

Las partes del cuerpo que utilizamos durante el habla crossword puzzle © Courtney Byrd

Figure 6

Write the unscrambled words in the blank next to the scrambled words

1. ehett _____
2. uhomt _____
3. slpi _____
4. sgnlu _____
5. irabn _____
6. eaachrt _____
7. euongt _____
8. wja _____
9. oomtr _____

Unscrambler your speech activity © Courtney Byrd

Figure 7

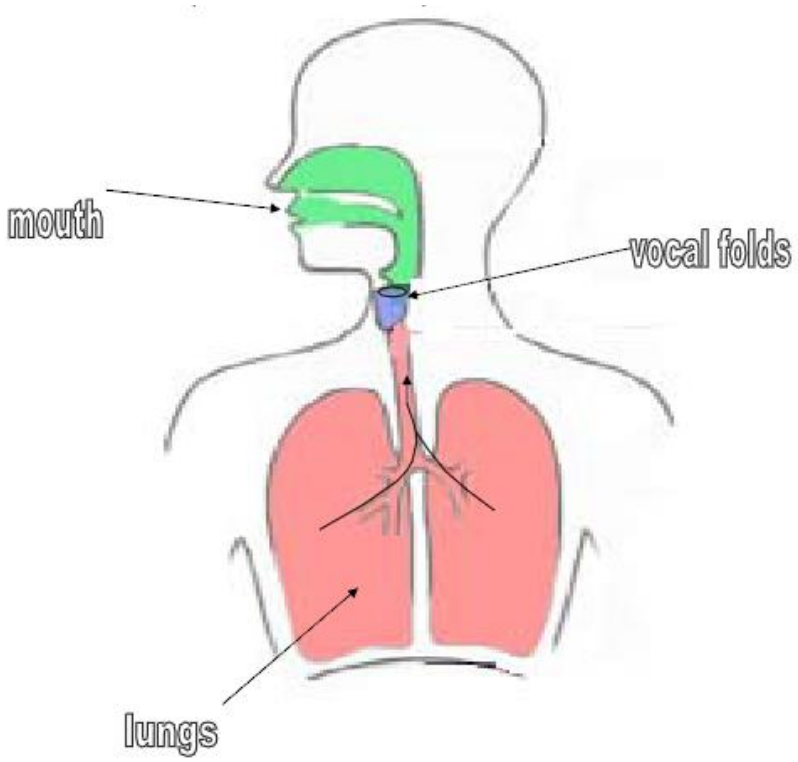
Leeds Community Healthcare NHS Trust

for you, for life

The Speech Mechanism

We produce speech using air which comes from the lungs, through the vocal folds (voice box) and out of the mouth (sometimes nose).

Spanish translation: Nosotros producimos el habla utilizando aire que viene de los pulmones, a través de las cuerdas vocales (caja de voz) y sale de la boca (a veces por la nariz).



The speech mechanism

Figure 8

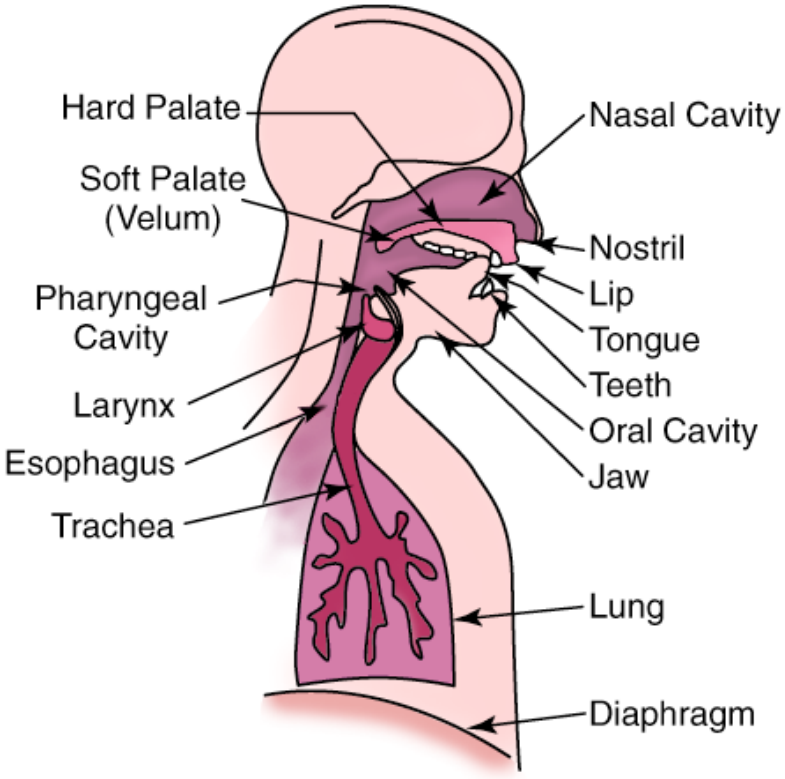
Leeds Community Healthcare NHS
NHS Trust

for you, for life

The Speech Mechanism Part 2

We shape the sound with our tongue, lips and teeth in order to say words and sounds. The soft palate opens and closes off the airway to the nose.

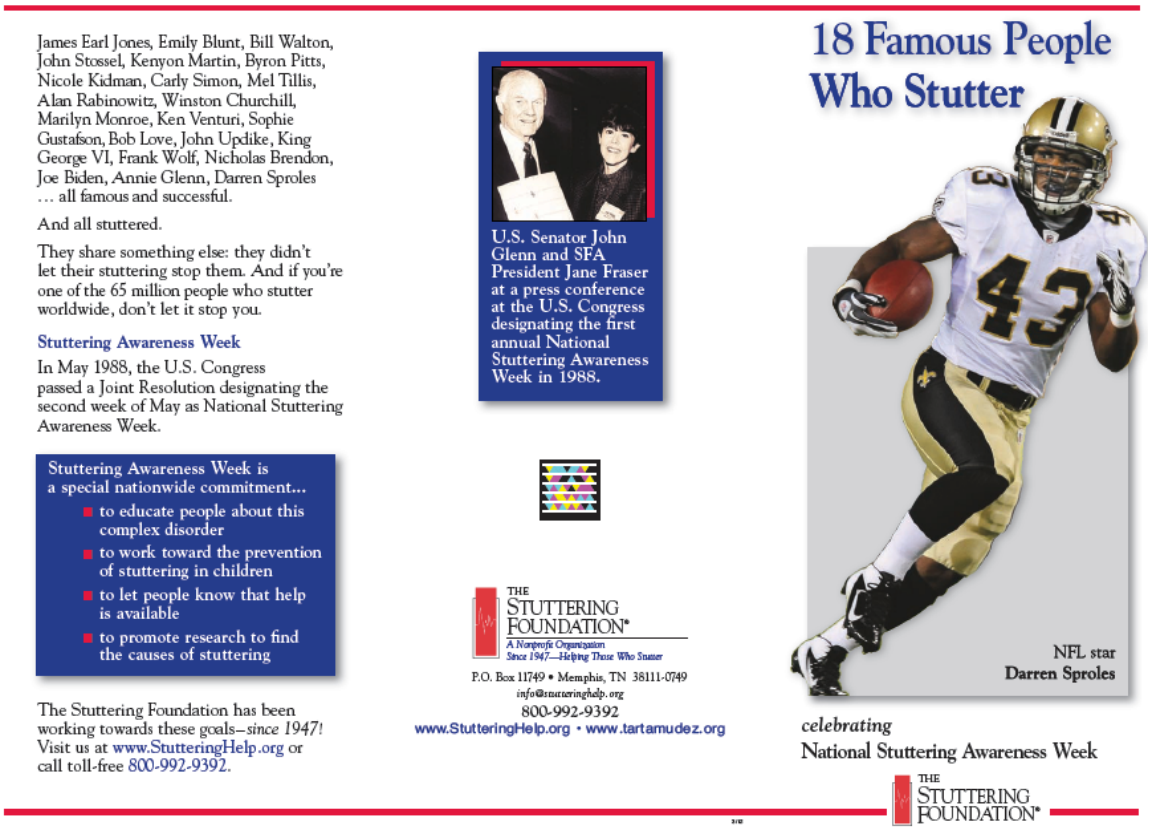
Spanish translation: Nosotros le damos forma al sonido con la lengua, los labios y los dientes para decir palabras y sonidos. El velo del paladar abre y cierra la vía aérea de la nariz.



The speech mechanism © Leeds Community Healthcare NHS Trust, September 2012

Figure 9

Brochure on Famous People Who Stutter



Brochure on famous people who stutter © The Stuttering Foundation

Figure 10

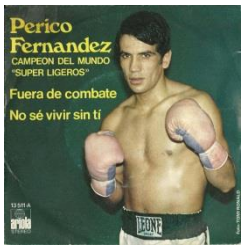
Brochure on Famous People Who Stutter Part 2

Figure 11

Spanish-Speaking Famous People Who Stutter

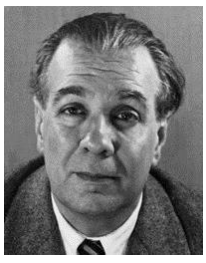
Marc Anthony – Pop singer who is a two-time Grammy and five-time Latin Grammy winner. He has sold more than 12 million albums worldwide and is the top selling tropical salsa artist of all time.

James Rodriguez – Soccer star from Columbia who gained international attention at the 2014 World Cup for his scoring abilities. He currently plays for Real Madrid, and previously played for AS Monaco FC.



Perico Fernandez – Retired professional boxer from Zaragoza, Spain who won the WBC Light Welterweight championship.

Juanfran (Juan Francisco Garcia Garcia) – Popular soccer player who currently plays for Levante UD as a central defender and has played for Real Madrid and Celta.



Jorge Luis Borges – Argentine writer of short stories and essays considered to be the most influential Latin American writer of the last century. Every year, the Argentinean Stuttering Association presents a Jorge Luis Borges Award.

Calvert Casey – Highly admired Cuban writer of short fiction. In 1998, his works were finally released in English with the publication of *Calvert Casey: The Collected Stories*.

Figure 12

Conversation Starters in English and Spanish

1. Tell me about a time you went to a birthday party.
2. If you could be any animal, what would you be and why?
3. What is your favorite season and why?
4. Tell me about your best friend.
5. Tell me about your favorite movie.
6. If your dog could talk, what would he/she say?
7. What is your favorite toy to play with?
8. If you could have a superpower, what would it be?
9. Tell me about your favorite teacher.
10. ¿Qué hiciste este fin de semana?
11. ¿Cuál es tu parte favorita de la escuela?
12. ¿Tienes una mascota?
13. ¿Cuál es tu día festivo favorito y porque?
14. ¿Te gusta jugar con tu hermanito/a?
15. ¿Cuál es tu libro favorito y porque?
16. ¿Te gusta algún deporte?
17. ¿Adónde has ido de vacaciones?
18. ¿Cuál es tu comida preferida?

Conversation starters in English and Spanish

Figure 13

Science Experiment to Practice Modification Strategies in Spanish:

Como Hacer Un Rehilete

Materiales:

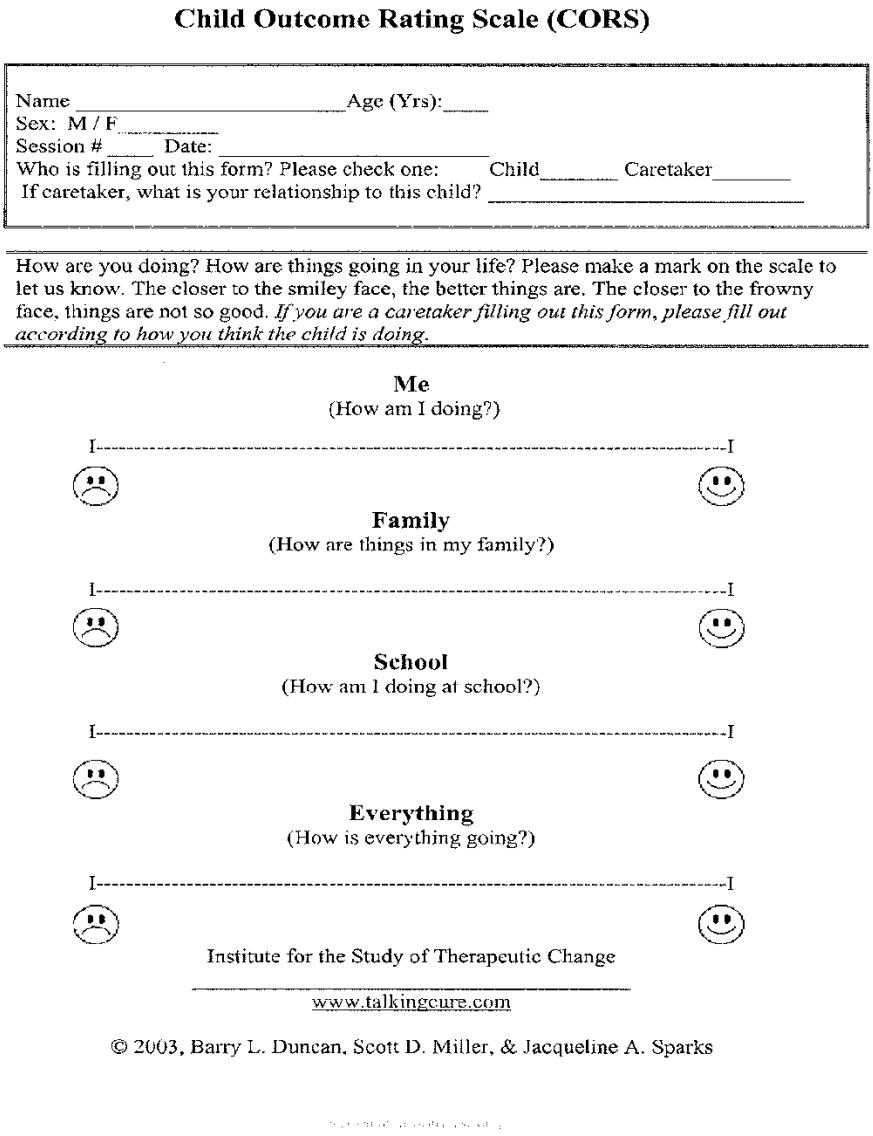
- Dos hojas de papel
- Tijeras
- Lápiz
- Pegamento
- Dos círculos de papel
- Alfiler

Instrucciones:

1. Dobla la hoja de papel para hacer un cuadrado. Luego corta la sección del papel que sobra abajo.
2. Dobla el papel de esquina a esquina hasta que se vea una X. Después dibuja cuatro cuadrados iguales en la hoja de papel usando la sección que se cortó anteriormente.
3. Traza el círculo chico en medio de la hoja de papel y corta las líneas diagonales hasta llegar al círculo.
4. Pega el círculo más grande en medio del papel.
5. Pega las cuatro esquinas del papel al centro del círculo.
6. Pega el círculo chico encima de las cuatro esquinas.
7. Encaja el alfiler en el centro del papel (con la ayuda de un adulto).
8. Con mucho cuidado y con la ayuda de un adulto, mete el alfiler en el borrador del lápiz.

Science experiment to practice modification strategies in Spanish © Tiffany Berry

Figure 14



Child Outcome Rating Scale (CORS)

Name _____Age (Yrs):____
Sex: M / F_____
Session # ____ Date: _____
Who is filling out this form? Please check one: Child_____ Caretaker_____
If caretaker, what is your relationship to this child? _____

How are you doing? How are things going in your life? Please make a mark on the scale to let us know. The closer to the smiley face, the better things are. The closer to the frowny face, things are not so good. *If you are a caretaker filling out this form, please fill out according to how you think the child is doing.*

Me
(How am I doing?)

I----------I

Family
(How are things in my family?)

I----------I

School
(How am I doing at school?)

I----------I

Everything
(How is everything going?)

I----------I

Institute for the Study of Therapeutic Change
www.talkingcure.com

If you would like a copy of the CORS, please download the document through the author's website at http://scott-d-miller-ph-d.myshopify.com/collections/performance-metrics/products/performance-metrics-licenses-for-the-ors-and-srs

Childhood outcome rating scale (CORS)

Figure 15

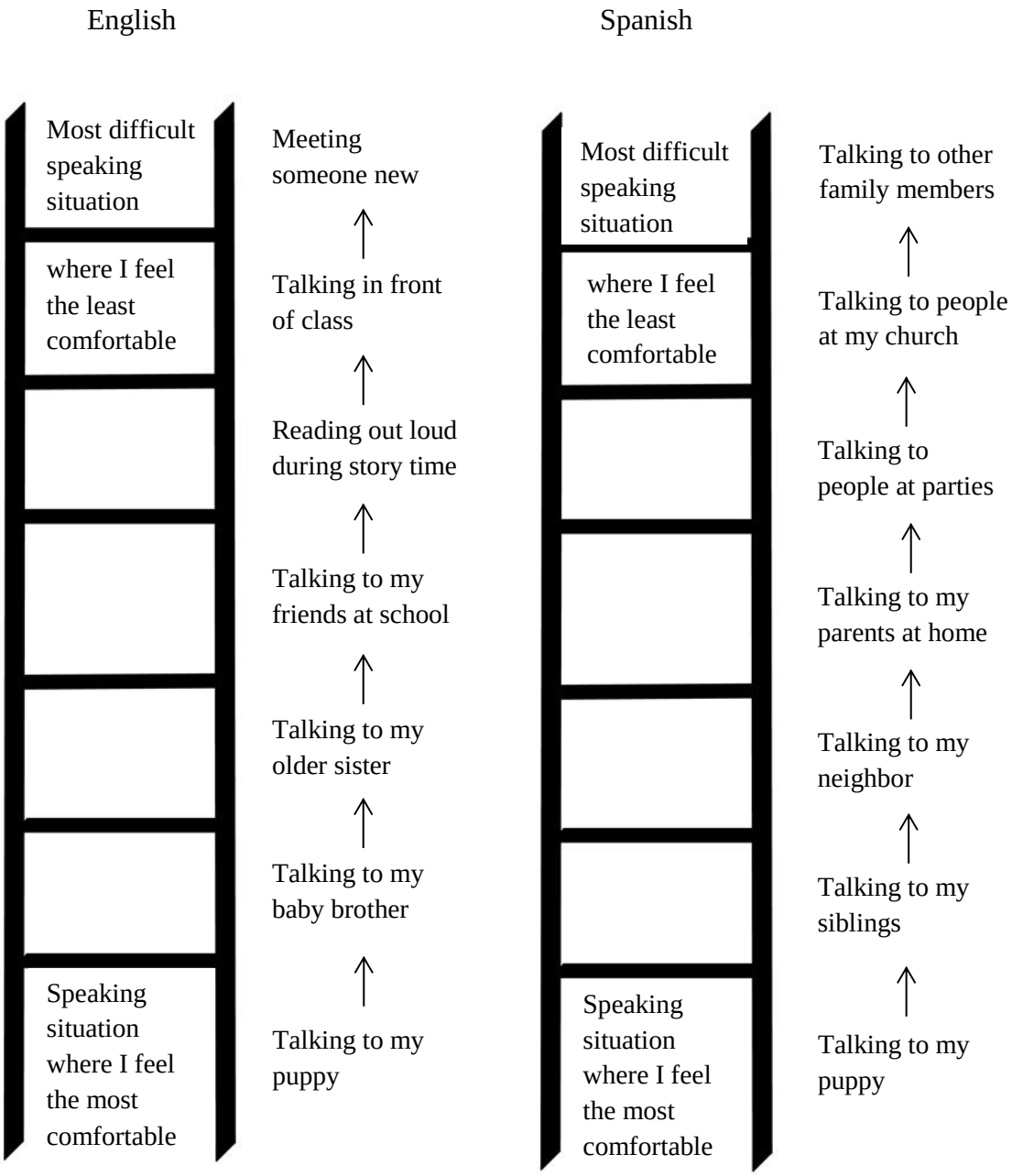
Disclosure Statements in English and Spanish

My name is _____ and I am a person who stutters. You may hear me repeat words or sounds, but if you have any questions or would like me to repeat something I said, please just let me know. I will also be practicing the strategies that I learned in speech therapy.

Spanish translation: Mi nombre es _____ y yo soy una persona que tartamudea. Si usted me escucha repetir palabras o sonidos y tiene alguna pregunta o necesita que repita algo que dije, por favor hágamelo saber. También estar practicando las estrategias que he aprendido en la terapia del habla.

Figure 16

Hierarchy Examples in English and Spanish



Hierarchy examples © Courtney Byrd, 2013 Expanded from lecture notes

Figure 17

Spanish Terminology

The following English to Spanish translations along with definitions are intended to provide SE bilingual therapists with the correct stuttering-related terms frequently used in the assessment and treatment.

1. Therapist – Terapeuta
2. Stuttering – Tartamudeo
3. Disfluencies – Disfluencias
4. Sound/syllable repetition – Repetición de sonidos/sílabas
5. Word repetition – Repetición de palabras
6. Prolongation – Prolongación
7. Block – Bloqueo
8. Interjection – Interjección
9. Revision – Revisión
10. Phrase repetition – Repetición de frases
11. Hierarchy – Jerarquía
12. Bumpy – Con baches
13. Smooth – Suave
14. Cancellation – Cancelación: Reducir la tensión en la habla después de tartamudear repitiendo la palabra de nuevo de una manera más relajada
15. Pull-out – Salirse: Soltar la tensión en el habla durante un momento de tartamudeo y decir el resto de la palabra más fácilmente

16. Preparatory set – Movimientos preparatorios: Relajar la tensión en el habla antes de que ocurra un momento de tartamudeo y decir la palabra más fácilmente
17. Voluntary stuttering – Tartamudeo Voluntario: Tartamudear a propósito para estar en control del habla y para practicar las técnicas
18. Easy Onset – Inicio fácil: Empezar a hablar con menos tensión física en los músculos del habla tomando un suspiro pequeño y diciendo la palabra durante la exhalación
19. Light articulatory touch – Contacto suave: Tocar los articuladores suavemente para reducir la tensión y hablar más fácilmente
20. Bullying – El acoso escolar

Appendix B

Documentation of Content / Copyright Permission

For figures 3 and 14:
To: info@scottdmiller.com
Feb 20 at 12:07 PM
Hi Dr. Miller,

My name is Tiffany Berry and I am a Speech-Language Pathology graduate student at the University of Texas in Austin. I am currently working on my Master's report which consists of a clinician handbook on how to assess and treat a bilingual stuttering client. I would like to include a copy of your Young Child Session Rating Scale and Child Outcome Rating Scale since self-rating is such an important aspect of therapy. Since I must comply with all copyright rules, may I obtain your permission to use those charts? Thank you.

Tiffany Berry
Graduate Clinician
Speech-Language Pathology
The University of Texas at Austin

Scott D. Miller, Ph.D.
To: me
Feb 20 at 12:23 PM
Hi Tiffany:

Thanks for your note and interest in the ORS and SRS.

Are you just wanting to include copies in your report? If so, yes, you have permission. I ask only that you include a link to my website where readers can download their own copies.

OK?

Scott D. Miller, Ph.D
Director, International Center for Clinical Excellence
www.iccexcellence.com
www.whatispcoms.com

To: Scott D. Miller, Ph.D.
CC: Courtney T. Byrd
Feb 20 at 10:00 PM

Dr. Miller,

Yes, I am only wanting to include a copy in my report and will absolutely include the link to your website. Thank you very much.

Tiffany Berry
Graduate Clinician
Speech-Language Pathology
The University of Texas at Austin

For figures 9, 10 and 11:
To: info@stutteringhelp.org
Feb 20 at 12:00 PM
Hi,

My name is Tiffany Berry and I am a Speech-Language Pathology graduate student at the University of Texas in Austin. I am currently working on my Master's report which consists of a clinician handbook on how to assess and treat a bilingual stuttering client. I would like to add a copy of your brochure of famous people who stutter since education is a fundamental aspect of therapy. Since I must comply with all copyright rules, who may I speak to in order to obtain this permission? Thank you.

Tiffany Berry
Graduate Clinician
Speech-Language Pathology
The University of Texas at Austin

Ron Shafer
To: me
CC: Jane Fraser
Feb 20 at 12:22 PM
Greetings Tiffany,

We would be delighted for you to use our brochure. All we ask is that you give us credit according to the copyright.

Ron Shafer
Stuttering Foundation
P. O. Box 11749
Memphis, TN 38111-0749
800-992-9392
901-761-0343
www.StutteringHelp.org

For Figures 7 and 8:
From: Tiffany Berry [tiffany091191@yahoo.com]
Sent: 26 February 2015 22:13
To: Ford Tina (LEEDS COMMUNITY HEALTHCARE NHS TRUST)
Cc: Courtney T. Byrd
Subject: Permission Request

Hi Ms. Ford,

My name is Tiffany Berry and I am a Speech-Language Pathology graduate student at the University of Texas in Austin. I am currently working on my Master's report which consists of a clinician handbook on how to assess and treat a bilingual stuttering client. I would like to include a copy of your speech mechanism exercise for young children since education is a such an important aspect of therapy. Since I must comply with all copyright rules, may I obtain your permission to use those documents? Thank you.

Tiffany Berry
Graduate Clinician
Speech-Language Pathology
The University of Texas at Austin

On Friday, February 27, 2015 10:41 AM, Ford Tina (LEEDS COMMUNITY HEALTHCARE NHS TRUST) <tina.ford01@nhs.net> wrote:

Hi Tiffany

Thank you for your e-mail.

I just wonder if you could give me a little more detail about what it is you are referring to by **speech mechanism exercise for children** ie is it on our SLT website, in the SLT Toolkit etc? I will then be able to forward this to the relevant person.

Many thanks.

Tina

Tina Ford
Acting Business Opportunities and Customer Care Lead
Children and Family Services

Leeds Community Healthcare NHS Trust
St Mary's Hospital, Green Hill Road, Armley, Leeds LS12 3QE
Telephone: 0113 305 5101
Mobile: 07903 597759
E-mail (secure): tina.ford01@nhs.net
Website address: www.leedscommunityhealthcare.nhs.uk/cslt

Leeds Speech and Language Therapy Service - Building Communication Skills for Life
Shine a Light Highly Commended Finalist National Commissioning Award (November 2012)
LCH Innovation Award Winner (September 2012)

From: Tiffany Berry [tiffany091191@yahoo.com]
Sent: 28 February 2015 04:25
To: Ford Tina (LEEDS COMMUNITY HEALTHCARE NHS TRUST)
Subject: Re: Permission Request

Hi Ms. Ford,

I came across the pdf attached below through a Google search. I am wanting permission to include pages 2 and 3 in my report. Thank you.

Tiffany Berry
Graduate Clinician
Speech-Language Pathology
The University of Texas at Austin

On Wednesday, March 11, 2015 4:58 AM, Ford Tina (LEEDS COMMUNITY HEALTHCARE NHS TRUST) <tina.ford01@nhs.net> wrote:

Hi Tiffany

I have just now had confirmation from the Head of Service that you are able to use the resources as described/attached to your e-mail. We just ask that you retain the formatting and logos and that there is acknowledgement to NHS Leeds Community Healthcare Children's Speech and Language Therapy Service, when they are reproduced.

Good luck with your Master's report.

Regards,

Tina

Tina Ford
Acting Business Opportunities and Customer Care Lead

Children and Family Services
Leeds Community Healthcare NHS Trust
St Mary's Hospital, Green Hill Road, Armley, Leeds LS12 3QE
Telephone: 0113 305 5101
Mobile: 07903 597759
E-mail (secure): tina.ford01@nhs.net
Website address: www.leedscommunityhealthcare.nhs.uk/cslt
Leeds Speech and Language Therapy Service - Building Communication Skills for Life
Shine a Light Highly Commended Finalist National Commissioning Award (November 2012)
LCH Innovation Award Winner (September 2012)

To: Ford Tina (LEEDS COMMUNITY HEALTHCARE NHS TRUST)
CC: Courtney T. Byrd
Mar 11 at 5:20 PM

Ms. Ford,

Thank you so much! I will keep the formatting and logos and give credit to NHS Leeds Community Healthcare Children's Speech and Language Therapy Service.

Tiffany Berry
Graduate Clinician
Speech-Language Pathology
The University of Texas at Austin

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This report was typed by the author.